



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D. C. 20231

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO
----------------	-------------	----------------------	--------------------

EXAMINER

ART UNIT

PAPER NUMBER

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/317,986

Applicant(s)

YAMANAKA ET AL.

Examiner

Christopher C. Pratt

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 8/24/01.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1, 6, 8 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1, 6, 8, 10 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendments and accompanying remarks filed 7/30/01 have been entered and carefully considered. Applicant's amendment is found to overcome the 112 indefinite rejection of claim 1. Despite this advance, the amendments are not found to patently distinguish the claims over the prior art and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

### ***Election/Restrictions***

2. Newly submitted claims 19-20 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: these claims attempt to specify the particular polyarylene sulfide used. As such they are a distinct species to the generic claim from which they depend.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 19-20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukata (4454189), as set forth in the last action.

Applicant argues that Fukata fails to disclose a branched and crosslinked polyarylene sulfide (PAS). Fukata, however, teaches that the amount of crosslinking and branching of the PAS is defined by the non-Newtonian coefficient. Applicant also defines the amount of crosslinking and branching in terms of the non-Newtonian coefficient (claim 1). The examiner notes that Fukata teaches a range of said coefficient anticipating applicant's claimed range (cols. 3-4, lines 65-10). As noted by applicant, Fukata also specifically teaches that branched PAS polymers are used (example 4).

In the supplemental remarks filed 8/24/01 applicant appears to argue that Fukata's disclosure of a non-Newtonian constant is not analogous to applicant's claimed non-Newtonian coefficient. Please submit evidence explaining how Fukata's "constant" is different from applicant's coefficient. Applicant also argues that Fukata's disclosure of a branched polymer (example 4) is not branched enough to meet applicant's non-Newtonian coefficient of 1.05. If 1 is a linear polymer then it is the examiner's position that 1.05 is a polymer having only a very small degree of branching. If applicant persists with this rejection then please submit evidence showing that the polymers used by Fukata do not have a non-Newtonian coefficient of 1.05 or more.

5. Claims 1 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harwood et al (6130292), Ikeda et al (4950529), or Auerbach (EP 709499) each in view of Fukata (4454189), as set forth in the last action.

Applicant argues that the combination set forth above does not teach applicant's claimed degree of crosslinking and branching. Fukata clearly teaches this limitation as set forth above.

Applicant argues that a person having ordinary skill in the art would not be motivated to combine the teachings of Fukata with the other references in said combination. The examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969. In this case, it is the examiner's position that one having ordinary skill in the art would have found it obvious to combine the teachings of Fukata with the polymers in of Harwood, Ikeda, and Auerbach. Such a combination would have been motivated by the reasoned expectation of utilizing a polymer, which is superior in spinnability and less liable to gelation (col. 4, lines 10-13), as set forth in the last action.

6. Claims 6, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harwood et al (6130292), Ikeda et al (4950529), or Auerbach (EP 709499) each in view of Fukata (4454189) and Senga (EP 353717).

Applicant argues that Senga does not teach crosslinking and branching. However, Applicant's specification teaches that branching and crosslinking is controlled by the amount of haloaromatic compound present in the reaction mixture (p. 8). Senga, teaches the use of all of applicant's claimed materials including an alkaline metal sulfide and a haloaromatic compound (abstract). Senga also specifically teaches branching the polymer (p. 2, lines 2-3). Said rejection is maintained from the last action.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Art Unit: 1771

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Pratt whose telephone number is 703-305-6559. The examiner can normally be reached on Monday - Friday from 7 am to 4 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher C. Pratt  
September 6, 2001



TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700